

IN THE CLAIMS

1-11. (canceled)

12. (currently amended) A method for controlling distribution of network

communications via a communications network, the method comprising:

sampling and classifying a subset of network communications according to sender in

order to determine, for every sender, a level of network communications

having a certain characteristic;

identifying a plurality of subsequent network communications, each being intended for

delivery to a respective recipient and each having a respective sender;

determining a priority value for each of the plurality of subsequent network

communications as a function of the level previously determined for the

communication's sender; and

causing delivery of the plurality of subsequent network communications to the

respective recipients in an order corresponding to the respective priority values

by allocating a network connection for delivery of a relatively high priority

network communication before allocating the network connection for delivery

of a relatively low priority network communication, wherein certain of the

~~plurality of network communications having a relatively high priority value are~~

~~delivered before certain of the plurality of network communications having a~~

~~relatively low priority value.~~

13. (canceled)

14. (currently amended) A method for controlling distribution of network communications via a communications network, the method comprising:

sampling and classifying a subset of network communications according to network paths over which the communications travel in order to determine, for every network path, a level of network communications having a certain characteristic;

identifying a plurality of subsequent network communications, each having a respective network path;

determining a priority value for each of the plurality of subsequent network communications as a function of the level previously determined for its respective network path; and

delaying allocation of a network connection for delivery of a first network communication having a first priority, and allocation of the network connection for delivery of a second network communication having a second priority higher than the first priority, allocation of the network connection for delivery of the second network communication being performed before allocation of the network communication for delivery of the first network communication.

~~selectively delaying, allocation of a network connection for delivering a network communication having a certain path until after utilization of network resources no longer exceeds a predetermined threshold.~~

15. (canceled)

16. (currently amended) A method for controlling distribution of network communications via a communications network, the method comprising:

sampling network communications received from a certain sender to determine a level of network communications having a certain characteristic;

determining a priority level as a function of the level; and

assigning the priority level to subsequent network communications received from the certain sender; and

selectively allocating network connections for each of a plurality of subsequent network communications in order to receive a prioritization effect according to the assigned priority level of the incoming network communication, the prioritization effect comprising allocating a network connection for delivery of a relatively high priority network communication before allocating the network connection for delivery of a relatively low priority network communication.

17. (original) The method of claim 16, wherein the characteristic comprises containing of a virus.

18. (original) The method of claim 16, wherein the characteristic comprises undeliverability of network communication to a respective receiver.

19. (original) The method of claim 16, wherein the characteristic comprises characterization of network communication as spam.

20. (original) The method of claim 19, wherein characterization of the network communication as spam is determined according to a pattern matching technique.

21. (canceled)

22. (currently amended) An apparatus for controlling distribution of network

communications via a communications network, the apparatus comprising:

means for identifying a respective priority for each of a plurality of network

communications by initially sampling, and classifying according to

communication sender, a subset of all network communications on the

communications network to determine, for every communication sender, a level

of network communications having a given characteristic, wherein each of the

plurality of network communications from a communications sender is assigned

a priority based upon the level; and

means for allocating network connections for delivery of network communications,

the means being configured to provide a prioritization effect whereby

connections are allocated for delivery of the plurality of network

communications in an order corresponding to respective priorities of the

plurality of network communications, a network communication having a

relatively high priority being allocated a network connection before another

network communication having a relatively low priority;

~~The apparatus of claim 21~~, whereby said means for allocating network connections

provides unnecessary delay for allocation of a network connection for a

network communication having a relatively low priority to permit allocation of

said network connection for delivery of a network communication having a

relatively high priority.

23. (previously presented) The apparatus of claim 22, wherein said delay is provided for any network communications having a certain priority.

24. (previously presented) The apparatus of claim 22, wherein said delay is provided for any network communication received along a certain network path.

25. (previously presented) The apparatus of claim 22, wherein said delay is provided for any network communication originating from a certain sender.

26. (previously presented) The apparatus of claim 22, wherein said delay is provided for any network communication when utilization of network resources exceeds a predetermined threshold.

27. (canceled)

28. (canceled)

29. (canceled)

30. (currently amended) A network appliance for controlling distribution of network communications via a communications network, the network appliance comprising:

a heuristic engine for identifying a network path for each of a plurality of network communications received by the network appliance, and for sampling a subset of the plurality of network communications, each network communication of the subset having a common network path;

a scanner for scanning each network communication of the subset and for determining a value for a sender metric for the network communications of the subset;

a rules database storing rules for delivering network communications, at least one of the rules correlating the value to a priority level; and

a connection processor for allocating network connections for delivery of network communications, the connection processor being configured to allocate network connections for certain network communications in an order of priority corresponding to the certain network communications' respective priority levels, wherein each network communication's respective priority level is assigned according to its respective network path, and the priority level assigned to the subset of network communications having an identical network path, and wherein the order of priority is achieved by allocating a network connection for delivery of a relatively high priority network communication before allocating the network connection for delivery of a relatively low priority network communication.

31. (original) The network appliance of claim 30, further comprising a notification module, the notification module being capable of communicating to another network appliance.
32. (original) The network appliance of claim 30, wherein the notification module is configured to communicate via the communications network.
33. (original) The network appliance of claim 31, wherein the notification module is configured to communicate priority level information for a corresponding network path.

34. (original) The network appliance of claim 31, wherein the notification module is configured to communicate a preference to delay network communications from a certain network path.
35. (original) The network appliance of claim 31, wherein the notification module is configured to communicate a request to reduce a volume of network communications directed to the network appliance.
36. (original) The network appliance of claim 30, wherein the sampling is performed according to a predetermined sampling rate.
37. (original) The network appliance of claim 36, wherein the predetermined sampling rate is stored in the rules database.
38. (original) The network appliance of claim 30, wherein the sampling rate is varied over time.
39. (original) The network appliance of claim 30, wherein the sender metric comprises a virus rate indicating a percentage of the network communications of the subset that carry a virus.
40. (original) The network appliance of claim 30, wherein the sender metric comprises a delivery success rate indicating the percentage of the network communications of the subset that are delivered.
41. (original) The network appliance of claim 30, wherein the sender metric comprises a spam rate indicating a percentage of the network communications of the subset that are determined to be unwanted.

42. (original) The network appliance of claim 41, wherein the determination of whether a certain network communication is unwanted is determined by content-based analysis.

43. (original) The network appliance of claim 41, wherein the determination of whether a certain network communication is unwanted is determined by pattern matching.

44. (original) The network appliance of claim 30, wherein the rules database further comprises a prescribed delay corresponding to the priority level.

45. (original) The network appliance of claim 44, wherein the prescribed delay comprises a fixed period of time.

46. (original) The network appliance of claim 44, wherein the prescribed delay comprises delay until network resource availability reaches a certain level.

47-51. (canceled)

52. (currently amended) A system for controlling distribution of network communications via a communications network, the system comprising:

a mail server operating within an internal communications network for distribution of incoming network communications received via an external communications network; and

a network appliance logically positioned between the mail server and the external communications network, the network appliance being specially configured to selectively allocate network connections of the internal communications network for delivery of the incoming network communications to the mail server, the network appliance being further configured to allocate network connections to the incoming network communications in a prioritized manner

determined according to an incoming network communication priority value corresponding to the communication's sender, wherein the priority value is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to determine, for every sender, a level of network communications having a certain characteristic, and wherein the prioritized manner of allocating network connections comprises allocating a network connection for delivery of a relatively high priority network communication before allocating the network connection for delivery of a relatively low priority network communication.

53. (canceled)

54. (canceled)

55. (canceled)

56. (currently amended) A network appliance for controlling distribution of network communications via a communications network, the network appliance receiving incoming network communication connections, the network appliance being capable of allocating network connections for delivering network communications, the network appliance selectively allocating network connections for each of a plurality of network communications in order to receive a prioritization effect according to an incoming network communication priority value corresponding to the communication's sender, wherein the priority value is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to determine, for every sender, a level of network communications having a certain characteristic, and wherein ~~The network appliance~~

~~of claim 55~~, the prioritization effect ~~comprising~~ comprises delaying allocation of a network connection for delivery of a first network communication having a first priority, and allocation of the network connection for delivery of a second network communication having a second priority higher than the first priority, allocation of the network connection for delivery of the second network communication being performed before allocation of the network communication for delivery of the first network communication.

57. (currently amended) A network appliance for controlling distribution of network communications via a communications network, the network appliance receiving incoming network communication connections, the network appliance being capable of allocating network connections for delivering network communications, the network appliance selectively allocating network connections for each of a plurality of network communications in order to receive a prioritization effect according to an incoming network communication priority value corresponding to the communication's sender, wherein the priority value is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to determine, for every sender, a level of network communications having a certain characteristic, and wherein ~~The network appliance~~ ~~of claim 55~~, the prioritization effect ~~comprising~~ comprises allocating a network connection for delivery of a relatively high priority network communication before allocating the network connection for delivery of a relatively low priority network communication.

58-61. (canceled)

62-77. (canceled)

78. (canceled)

79. (currently amended) A method for controlling distribution of network communications via a communications network, the method comprising:

identifying a plurality of network communications, each having a respective priority level corresponding to the communication's sender, wherein the respective priority level is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to determine, for every sender, a level of network communications having a certain characteristic;

allocating network connections for delivery of network communications to allocate network connections as a function of a respective priority level of each of the plurality of network communications, ~~The method of claim 78,~~ wherein said allocating comprises allocating a network connection to a certain network communication having a first priority level before allocating the network connection to another network communication having a second priority level lower than the first priority level.

80. (canceled)

81. (currently amended) A method for controlling distribution of network communications via a communications network, the method comprising:

identifying a plurality of network communications, each having a respective priority level corresponding to the communication's sender, wherein the respective priority level is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to

determine, for every sender, a level of network communications having a certain characteristic;

allocating network connections for delivery of network communications to allocate network connections as a function of a respective priority level of each of the plurality of network communications, ~~The method of claim 78,~~ wherein said allocating comprises causing delivery of a certain network communication having a first priority level to occur after delivery of another network communication having a second priority level higher than the first priority level.

82-87. (canceled)